

# MATHEMATICS

# Grade 6

**2011 Released Test Questions**

These released questions represent selected TEKS student expectations for each reporting category. These questions are samples only and do not represent all the student expectations eligible for assessment.

- 1 Max asked 50 students in his school which breakfast cereal they prefer. The table below shows the results of his survey.

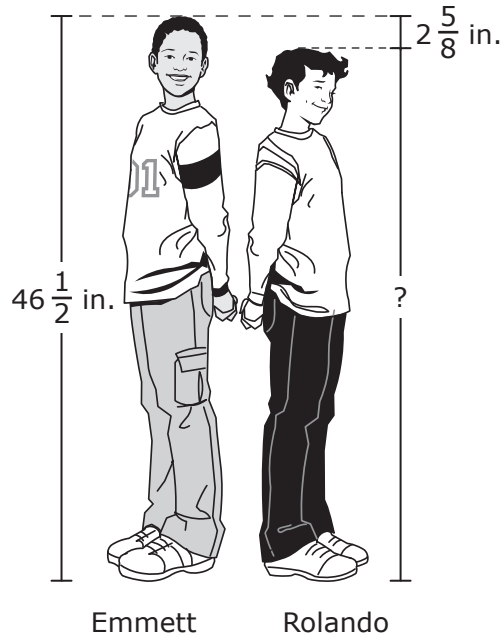
Cereal Survey

Breakfast Cereal	Number of Students
Yummy Flakes	12
Choco Crunch	25
Fruit Crunchies	13

What decimal represents the fraction of students who prefer Fruit Crunchies?

Record your answer and fill in the bubbles on your answer document. Be sure to use the correct place value.

- 2 Emmett is  $46\frac{1}{2}$  inches tall. Rolando is  $2\frac{5}{8}$  inches shorter than Emmett. How tall is Rolando?



- A  $43\frac{1}{2}$  in.
- B  $43\frac{7}{8}$  in.
- C  $44\frac{2}{3}$  in.
- D  $49\frac{1}{8}$  in.

- 3** Melanie is going to read a 219-page book. She reads at a rate of 20 pages per day. Based on this information, which of the following statements is a reasonable conclusion?
- A** She will have read less than  $\frac{1}{2}$  of the book after 5 days.
  - B** She will have read more than  $\frac{1}{3}$  of the book after 3 days.
  - C** She will have read more than 138 pages after 4 days.
  - D** She will have read fewer than 110 pages after 6 days.
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- 4** At the last school pep rally, 3 out of every 7 students wore school colors. Based on this information, if 350 students attend the next pep rally, how many of these students will wear school colors?
- A** 150
  - B** 50
  - C** 200
  - D** Not here

- 5 Coach Pérez prepared the table below to show how the income earned by a soccer league changes depending on the number of teams in the league.

Soccer League Income

Number of Teams	League Income (dollars)
2	1,430
6	4,290
9	6,435
10	7,150
$s$	$l$

Which expression could be used to find  $l$ , the income the soccer league would earn if it had  $s$  teams?

- A  $715s$
- B  $s + 2,145$
- C  $1,430s$
- D  $s + 2,860$
- 
- 6 Sherman read 154 pages of a book in 4 days. He read 32 pages on each of the first 2 days and  $y$  pages on the third day. Which equation can be used to find  $p$ , the number of pages Sherman read on the fourth day?
- A  $p = 154 - 32(2 \cdot y)$
- B  $p = 154 - (32 \cdot 2) - y$
- C  $p = 154 - 2(32 + y)$
- D  $p = 154 - (y \cdot 2) - 32$

- 7 Which statement about polygons is NOT true?
- A If all the angles of a triangle are congruent, then the measure of each angle is  $60^\circ$ .
  - B If a triangle has a right angle, then both of the other angles are acute.
  - C If a figure is a rectangle, then the sum of the measures of 2 angles is  $180^\circ$ .
  - D If a quadrilateral has exactly 2 obtuse angles, then each of the other angles is a right angle.

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- 8 The circumference of a circular garden is 32 feet. Which of the following expressions best represents the radius of the garden?

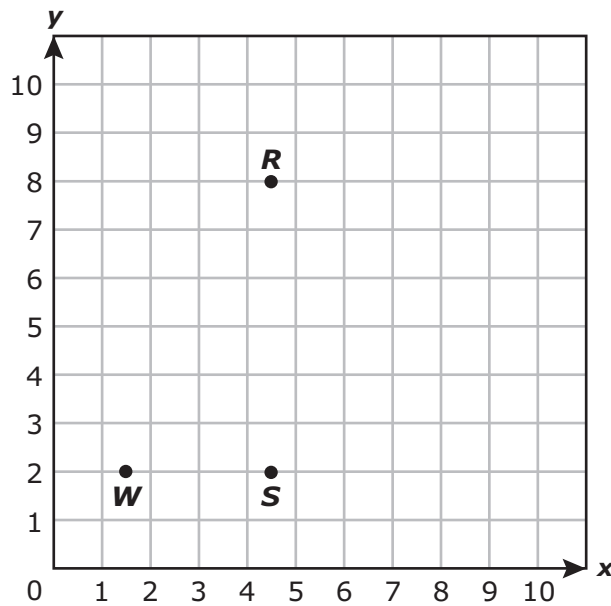
A  $\frac{32}{\pi}$

B  $32 \cdot \pi$

C  $\frac{32}{2\pi}$

D  $32 \cdot 2\pi$

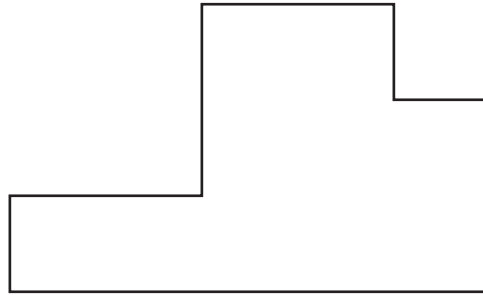
- 9 There are 3 vertices of rectangle  $WSRZ$  plotted on the coordinate grid below. The fourth vertex of the rectangle will be represented by point  $Z$ .



Which of the following ordered pairs best represents point  $Z$ ?

- A  $(8, 7\frac{1}{2})$
- B  $(1\frac{1}{2}, 8)$
- C  $(8, 1\frac{1}{2})$
- D  $(7\frac{1}{2}, 8)$

- 10** The figure below represents the floor of a building. Use the ruler provided to measure the dimensions of the figure to the nearest  $\frac{1}{2}$  inch.



Scale  
1 in. = 20 ft

Which is closest to the perimeter in feet of the floor of the actual building?

- A** 160 ft
- B** 8 ft
- C** 7 ft
- D** 140 ft
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- 11** Mrs. Wallace wants to buy  $1\frac{1}{2}$  gallons of sour cream for a recipe. If sour cream is sold only in 1-pint containers, how many containers will she need to buy?
- A** 6
- B** 8
- C** 12
- D** 16



- 12** Roberto has 17 games in his room. He has 6 board games, and the rest are video games. If Roberto selects a game at random, which expression represents the probability that the game he selects will be a video game?

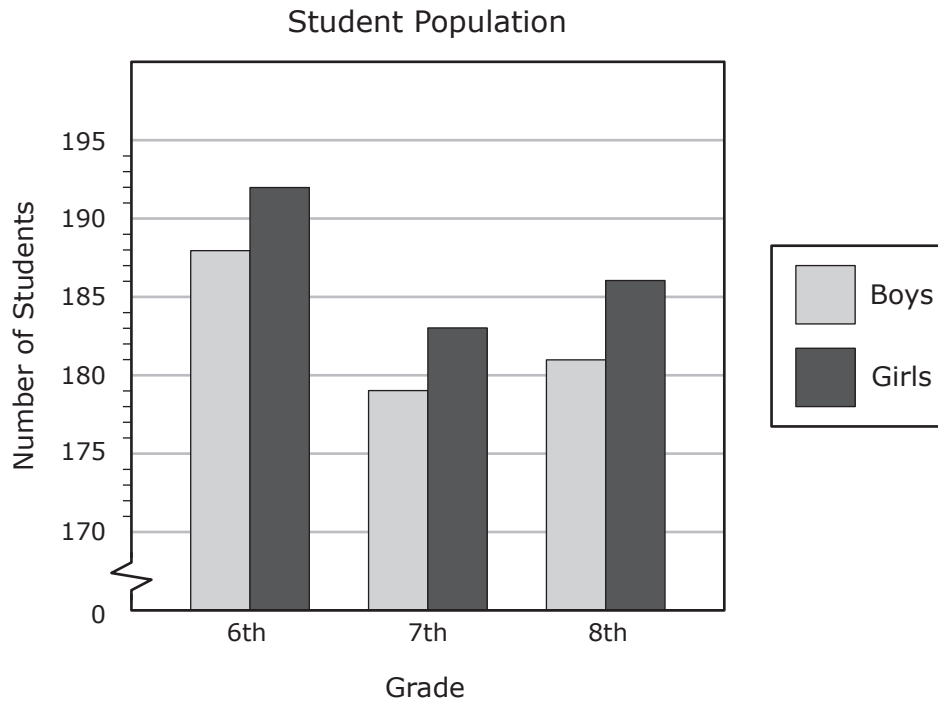
**A**  $1 + \frac{6}{11}$

**B**  $1 + \frac{6}{17}$

**C**  $1 - \frac{6}{11}$

**D**  $1 - \frac{6}{17}$

- 13 The graph below shows the number of students in each grade at a middle school.



Which statement is NOT supported by the information in the graph?

- A About 1,100 students attend this middle school.
- B There are approximately 10 more girls in the 6th grade than in the 7th grade.
- C About 400 boys and 400 girls attend this middle school.
- D There are approximately 13 more students in 6th grade than in 8th grade at this middle school.

Item Number	Reporting Category	Readiness or Supporting	Content Student Expectation	Process Student Expectation	Correct Answer
1	1	Readiness	6.1(B)	6.11(B)	0.26
2	1	Readiness	6.2(B)	6.11(B)	B
3	1	Readiness	6.2(C)	6.11(B)	A
4	2	Readiness	6.3(C)	6.11(B)	A
5	2	Readiness	6.4(A)	6.12(A)	A
6	2	Readiness	6.5(A)	6.12(A)	B
7	3	Supporting	6.6(B)	6.13(A)	D
8	3	Readiness	6.6(C)	6.12(A)	C
9	3	Supporting	6.7(A)	6.11(D)	B
10	4	Readiness	6.8(B)	6.11(D)	A
11	4	Supporting	6.8(D)	6.11(B)	C
12	5	Supporting	6.9(B)		D
13	5	Readiness	6.10(D)	6.12(A)	C

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